App. No. 10/522,887
Office Action Dated January 26, 2009

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Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1-16. (Canceled)

17. (Currently Amended) A method for producing a transgenic Indica rice variety comprising:

a. Constructing an expression vector for plant transformation that comprises a promoter, a Manganese superoxide dismutase (MnSOD) coding sequence derived from *Nicotiana Plumbaginicolia L.*, and a transit peptide coding sequence, wherein the promoter, the transit peptide coding sequence and the MnSOD coding sequence are operably linked;
b. Stably [[T]]transforming rice calli of said indica rice variety with the vector constructed in step (a);
c. Regenerating the transformed calli into mature transgenic plants of said rice variety.

18. (Previously presented) The method according to claim 17, wherein said transit peptide coding sequence is a Pea ribulose-1-5-bisphosphate carboxylase small subunit transit peptide coding sequence.

19. (Previously presented) The method according to claim 17, wherein said promoter is a Cassava vein mosaic Virus (CVMV) promoter.

20. (Previously presented). The method according to claim 17, wherein said MnSOD coding sequence is further operably linked to a NOS terminator.

21-22. (Canceled)

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23. (Currently amended) The transgenic rice variety produced by the method according to claim 17, wherein the mature transgenic plants of said rice variety display increased superoxide dismutase (SOD) activity as compared to a corresponding plant variety without said expression vector of step (a) in the presence of environmental stress ~~said transgenic rice variety produces 30-95% increase in superoxide dismutase (SOD) activity~~.

24. (Currently amended). The transgenic rice variety according to claim 23, wherein said transgenic rice variety is selected from the group consisting of Godavari 8 and Salween 2~~, and produces 30-95% increase in superoxide dismutase (SOD) activity~~.

25. (Previously presented) The method according to claim 17, wherein said transgenic plants display increased yield as compared to that of non-transgenic plants under environmental stress conditions, increased tolerance as compared to that of non-transgenic plants to pathogen attack, and play a role in the food industry by increasing a shelf life of said rice variety as compared to that of non-transgenic plants.

26-28. (Canceled)

29. (New) The method according to claim 23, wherein the environmental stress is increased methylviologen concentration.

30. (New) The method of claim 17, wherein the mature transgenic plants of said variety stably expresses the MnSOD coding sequence within a targeted organelle of the transit peptide.

31. (New) The method of claim 30, wherein the targeted organelle is chloroplast.

32. (New) The method of claim 17, wherein the mature transgenic plants of said rice variety in step (c) is capable of producing a progeny plant of a subsequent generation expressing the MnSOD coding sequence within the targeted organelle of the transit peptide.

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33. (New) A method for producing a transgenic indica rice variety comprising:

a. Constructing an expression vector for plant transformation that comprises a promoter, a Manganese superoxide dismutase (MnSOD) coding sequence derived from *Nicotiana Plumbaginicolia L.*, and a transit peptide coding sequence, wherein the promoter, the transit peptide coding sequence and the MnSOD coding sequence are operably linked;

b. Transforming rice calli of said indica rice variety with the vector constructed in step (a);

c. Regenerating the transformed calli into mature transgenic plants of indica rice variety, wherein the transgenic indica rice variety is selected from the group consisting of Godavari 8 and Salween 2.